

# PATENT ABSTRACTS OF JAPAN

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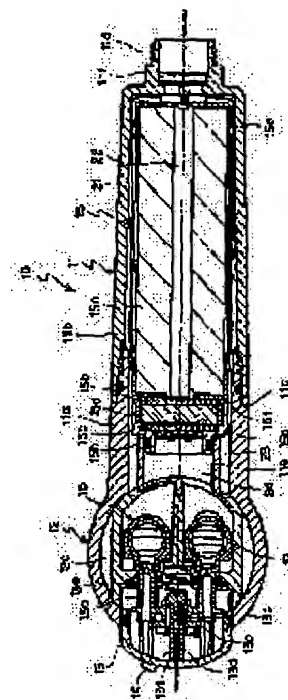
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## (54) SHOWER HEAD WITH WATER PURIFICATION FUNCTION

### (57)Abstract:

PROBLEM TO BE SOLVED: To drastically relieve the restrictions on a shape and structure of a selector valve, housing volume, etc., and to provide a shape and structure which are good in both handling and balance by forming a flow passage selector valve and a discharge selector valve respectively separately manipulatably from the outer side of a head part.

SOLUTION: The restriction on the size of the flow passage selector valve consisting of cutoff valves 16 and 17 for changing over of water quality may be drastically relieved and the manipulation of the flow passage selector valve on the head part 12 side is made possible by making it possible to widen the restriction on the flow passage selector valve to the range where the building of the valve into the head part 12 is possible and, therefore, operability is improved. The shape and structure which allow the weight proportion of the head part 12 and a clamping part 11 with the good balance and is good in the balance in handling of the shower head as well may be obtained. Since the discharge selector valve 26 is formed as a lever-operated cutoff valve, the selection of a shower discharge and a straight discharge is possible even when either of the cutoff valve 16 for raw water or the cutoff valve 17 for water purification is opened. Convenience may thus be improved. The shower head 10 with the water purification function having high versatility is thus provided.



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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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CLAIMS

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[Claim(s)]

[Claim 1] The grasping section formed so that it could have by the direct hand, while having an end connection with other parts. The head which has the shower delivery formed at the nose of cam of this grasping section at one. While being the shower head with a water-purifying function equipped with the above and building the cartridge for water quality purification in the aforementioned grasping section The water-purifying passage which penetrates the aforementioned cartridge for water quality purification by built-in of this cartridge for water quality purification, and the raw water passage which does not penetrate the aforementioned cartridge for water quality purification are formed. The passage change-over valve which switches the passage of the aforementioned water-purifying passage and the aforementioned raw water passage is included in the aforementioned head. Put a straight delivery side by side in the formation part of the aforementioned shower delivery, and the regurgitation change-over valve which switches the regurgitation from the aforementioned straight delivery and the regurgitation from the aforementioned shower delivery is incorporated. the aforementioned passage change-over valve and the aforementioned regurgitation change-over valve -- each -- \*\*\*\* -- it is characterized by forming more operational than the outside of the aforementioned head

[Claim 2] The water-purifying passage and raw water passage which are formed of built-in of the aforementioned cartridge for water quality purification The periphery side-stream way of the aforementioned cartridge for water quality purification is made into a part of raw water passage. The shower head with a water-purifying function according to claim 1 characterized by forming the passage which results in the central space section formed in the core through the water quality purification material prepared in the aforementioned cartridge for water quality purification from this periphery side-stream way as a part of water-purifying passage.

[Claim 3] The shower head according to claim 1 with a water-purifying function to which the water-purifying passage and the raw-water passage formed of built-in of the aforementioned cartridge for water-quality purification make the central space section of the aforementioned cartridge for water-quality purification a part of raw-water passage, and are characterized by to form the passage which reaches a periphery side-stream way through the water-quality purification material prepared in the aforementioned cartridge for water-quality purification from this central space section as a part of water-purifying passage.

[Claim 4] The shower head with a water-purifying function according to claim 1 characterized by having arranged the aforementioned passage change-over valve to the downstream of the aforementioned cartridge for water quality purification.

[Claim 5] The shower head with a water-purifying function according to claim 1 characterized by having arranged the aforementioned passage change-over valve to the upstream of the aforementioned cartridge for water quality purification.

[Claim 6] The shower head with a water-purifying function according to claim 1 characterized by having incorporated the control unit of the aforementioned passage change-over valve in the aforementioned head, and projecting the final control element of the aforementioned control unit to a way outside the aforementioned head.

[Claim 7] The shower head with a water-purifying function according to claim 1 characterized by having formed the push button for the aforementioned passage change-over valve as a final control element of the aforementioned control unit, and forming in the alternate-switching formula isolation valve which put side by side the isolation valve for clean water which intercepts passage by turns with this push button, and the isolation valve for raw water.

[Claim 8] The shower head with a water-purifying function according to claim 1 characterized by having formed the control lever for the aforementioned passage change-over valve as a final control element of the aforementioned control unit, and forming in the alternate-switching formula isolation valve which put side by side the isolation valve for clean water which intercepts passage by turns by this control lever, and the isolation valve for raw water.

[Claim 9] The shower head with a water-purifying function according to claim 7 or 8 characterized by the isolation valve for clean water of the aforementioned alternate-switching formula isolation valve and the isolation valve for raw water possessing a globular form valve element, respectively.

[Claim 10] The shower head with a water-purifying function according to claim 1 characterized by forming in the regurgitation change-over valve equipped with the control unit which formed the aforementioned regurgitation change-over valve possible [ a passage change ] from the outside of the aforementioned head.

[Claim 11] The shower head with a water-purifying function according to claim 1 characterized by forming in the isolation valve of the lever operation equipped with the control lever which operates the aforementioned regurgitation change-over valve from the outside of the aforementioned head as the aforementioned control unit.

[Claim 12] The shower head with a water-purifying function according to claim 1 characterized by forming in the regurgitation

change-over valve equipped with the rotating type control unit which operates a delivery for the aforementioned regurgitation change-over valve from the outside of the aforementioned head.

[Claim 13] The shower head with a water-purifying function according to claim 2 or 3 characterized by infixing a sterilization ceramic and/or the sintering magnetic substance all over the passage of a before [ from the aforementioned water quality purification material / the aforementioned regurgitation change-over valve ].

[Claim 14] The shower head with a water-purifying function according to claim 4 or 5 characterized by infixing a sterilization ceramic and/or the sintering magnetic substance all over the passage of a before [ from the aforementioned passage change-over valve / the aforementioned regurgitation change-over valve ].

[Claim 15] The shower head with a water-purifying function according to claim 1 characterized by connecting to an end connection with parts besides the above the hose connected to the cock.

[Claim 16] The shower head with a water-purifying function according to claim 1 characterized by carrying out the direct file of the delivery of a cock to an end connection with parts besides the above.

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[Translation done.]